

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE Senior Transportation Surveyor, Caltrans	OFFICE/BRANCH/SECTION 52/Right of Way/Surveys, Office of Land Surveys	
WORKING TITLE Chief, New Technology Systems	POSITION NUMBER 913-400-3031-009	EFFECTIVE DATE 12/2/2015

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

GENERAL STATEMENT:

Under the direction of the Chief, Office of Land Surveys, the incumbent leads the Division of Right of Way and Land Survey's efforts to research and deploy new technologies, ensuring integration with existing Caltrans surveying, photogrammetry, Global Positioning System (GPS)/Global Navigation Satellite Systems (GNSS), Total Station Survey System (TSSS), Light Detection and Ranging (LiDAR), Roadway Design Software (RDS), Computer-Aided Design and Drafting (CADD) and Geographic Information Systems (GIS) systems. As the team leader for statewide surveying new technology, partners with the Division of Research, Innovation and Systems Information (DRISI), other Divisions/Districts, academia, and national engagement entities.

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M) ¹	Job Description
45% E	Updates the statewide LiDAR data collection and processing procedures by keeping current with latest advancements and adopting best practices from the LiDAR industry. Acts as a technical advisor to the Divisions/Districts in the development and deployment of all LiDAR data processing systems including: data collection, reduction, adjustment and conversion to the Department's surveying, RDS and CADD systems. Provides day-to-day technical support to District/Region surveyors as requested to find solutions as data processing problems are encountered when receiving and/or transferring of electronic survey information between Caltrans' units and/or surveying consultants. Assists districts with scheduling and dispatching Caltrans Mobile Terrestrial Laser Scanning (MTLS) system(s).
25% E	Acts as the Technical Advisor Panel (TAP) Coordinator for the Surveys research program. Supports the Division's Program Steering Committee (PSC) by determining TAP membership to develop and review problem statements for Preliminary Investigation (PI), make rankings and recommendations on PIs and continuing research projects, new task recommendations, schedule meetings and make presentations on findings to the PSC and DRISI. Primary contact with researchers from academia, State DOTs, externals and others involved in the national engagement (American Association of State Highway and Transportation Officials (AASHTO), Federal Highway Administration (FHWA), Transportation Research Board (TRB), etc.).
15% E	Develops methods and procedures to integrate new technologies with departmental processes. Designs new workflows to produce deliverables, drafts manual updates, communicates with other divisions to determine their deliverable needs, and advises other programs on the suitability of new technology for their projects.
10% E	Informs District/Region Survey Managers and staff of new developments in electronic data processing systems and state of the art survey systems through update memos, user group meetings and telephone conferences. Takes the lead in team efforts to evaluate new technology surveying data processing equipment and software, documenting cost/benefit analysis, makes procurement recommendations and prepares purchase requests.
5% E	Instructs at the Caltrans Survey Academy, Project Delivery Personnel Development (PDPD), and other professional development training courses. Keeps abreast of latest technology through internet searches, trade magazines, vendor demonstrations and attending conference and

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

workshops.

¹ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

No direct supervision of others is required. In a lead person capacity this position leads groups of survey personnel as a technical advisor and/or project leader of committees for training, specialized system studies, or functional meetings.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

The minimum requirements are as stated in the specifications for Senior Transportation Surveyor (Caltrans).

This position requires knowledge of the methods of precise survey measurements and observations; procedures, equipment, and materials used in surveying; including mapping and drafting techniques; mathematics and procedures used in plan and geodetic surveying; the California Coordinate System; survey computer applications, usage, and programming; extensive experience in creating and manipulating survey data used in the compilation of Digital Terrain Modeling (DTM) acquired from state of the art photogrammetric, terrestrial, and GPS surveying systems.

The incumbent must understand and apply the department's consultant contracting policies and procedures; interpret and apply State and Departmental budgeting procurement policies; prepare clear and comprehensive reports and technical correspondence; make verbal presentations; analyze situations accurately and adopt an effective course of action.

Knowledge Required:

Must have a extensive knowledge of surveying practices and procedures; survey methods; survey equipment and their operation; have working knowledge of electronic information processing systems equipment, software and practices; communications between computer hardware; analytical techniques; technical report writing.

Abilities Required:

Must have the ability to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions; develop effective solutions; apply creative thinking in the development of methods/techniques of processing data with electronic computers; monitor and resolve problems with information processing systems hardware, software and processes.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Judgments and decisions are made for a variety of surveying activities. The incumbents' responsibilities are, at times, shared with others. The Supervising Transportation Surveyor reviews critical decisions. However, the review and resultant decision are based on the information and judgments of this position. Poor judgment in decision making and actions by the incumbent will result in ineffective procedures, solutions, and training, which will decrease the productivity of the Department's Survey function.

PUBLIC AND INTERNAL CONTACTS

The position requires frequent liaison with internal related units and other agencies (public and private) for the exchange of survey information and data especially that which involves electronic survey data collection and processing. Hence, it is imperative that the incumbent establishes and maintains effective working relationships with others and communicates effectively verbally and in writing.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Must have the ability to multi-task, adapt to changes in priorities and complete tasks or projects with short notice. Must value cultural diversity and other individual differences in the workforce; behave in a fair and ethical manner toward others and demonstrate a sense of responsibility and commitment to public service; must have the ability to resolve conflicts in a reasonable and diplomatic manner; must be able to develop and maintain cooperative working relationships. Employee may be required to sit for long periods of time using a keyboard and video display terminal.

WORK ENVIRONMENT

Employee will work in a climate-controlled office under artificial lighting. May be required to travel in State; travel is not very frequent, i.e., every other month.

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE
